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Sybase ASE Remains A Strong Enterprise DBMS

Reliability, Support, And Innovation Are Behind Sybase's Increased Growth

by Noel Yuhanna

with Mike Gilpin and Catherine Salzinger

EXECUTIVE SUMMARY

Over the past year, Forrester interviewed 65 Sybase customers who use Sybase Adaptive Server Enterprise (ASE). A majority of these customers rated Sybase ASE as a highly reliable database management system (DBMS) with strong database features, very good technical support, and the ability to meet or exceed their requirements to support mission-critical applications. Sybase remains committed to ASE, focusing on advanced features and innovation, especially in the areas of performance, continuous availability, scalability, security, manageability, and XML. In 2006, Sybase added support for native database-level encryption ahead of Microsoft and IBM, and recently it released a shared-disk clustering solution that is rivaled only by Oracle's Real Application Clusters product. Therefore, enterprise architects and information management professionals who judge Sybase ASE to be a good fit for their requirements can keep it in their infrastructure road maps for the foreseeable future, confident that it remains a strong option among the major enterprise players.

SYBASE HAS A SOLID TRACK RECORD FOR RELIABILITY AND SUPPORT

Sybase ASE is back on a growth path, with 1,200 new enterprise customers in 2007 and existing customers expanding their deployments. License revenue has grown at a double-digit rate for the past two quarters, and Sybase continues to expand its services business, as well. More than two years ago, Forrester received a significant number of inquiries from Sybase customers questioning the company's long-term viability and asking whether they should consider migrating to another provider's DBMS. More recently, there has been a shift in the nature of inquiries about Sybase ASE. Enterprises are asking how to get additional discounts on new ASE licenses, what tools to use with Sybase ASE, and what best practices they should follow when using Sybase databases; fewer enterprises are questioning if and when they should migrate. This shift in the nature of inquiries parallels a shift that has played out over the history of Sybase:

- **Sybase ASE started as a technology leader.** . . Ever since it was first released in the late '80s, Sybase ASE was one of the first products offering multithreaded architecture, stored procedures, database triggers, and two-phase commit. Its technology leadership guided many large enterprises, especially in the financial services sector, to embrace ASE for mission-critical, high-volume applications.
- **. . . but lost its edge as others caught up.** During the early '90s, IBM, Microsoft, and Oracle stepped up their marketing efforts and increased DBMS innovation, erasing Sybase's competitive edge. Yet despite this strong competition, Sybase has stayed in the game as a serious player.



Headquarters

Forrester Research, Inc., 400 Technology Square, Cambridge, MA 02139 USA
Tel: +1 617.613.6000 • Fax: +1 617.613.5000 • www.forrester.com

- **Nonetheless, Sybase has invested to keep ASE competitive.** Sybase ASE 15 supports much larger databases, has improved security and manageability, and offers enhanced support for native XML data types. Like Oracle, Sybase was one of the first vendors to offer column-level data-at-rest database encryption, a level of security that meets the rising demand that privacy regulations are currently driving. ASE 15 also delivers enhanced support for storing unstructured data, allowing the database to store audio, video, documents, content, emails, and images. And ASE 15 performance enhancements include support for semantic partitions, an improved query-processing engine, and unlimited storage to support very large databases.

Sybase ASE Remains A Viable DBMS

Forrester estimates that Sybase ASE has an installed base of 25,000 customers worldwide, and adoption continues to grow strongly as enterprises look for more reliable, secure, and high-performance databases. Many enterprises support critical applications by running terabyte-size databases on ASE, including Passport Canada, which has a 7-terabyte database, and BlueCross BlueShield of Tennessee (BCBS-TN), which has a 2.5-terabyte production database. Sybase ASE remains a strong choice for enterprises because it delivers:

- **A very stable product.** Many large financial institutions run Sybase ASE to support mission-critical transactional applications. Although this number has decreased in the past five years, the financial sector remains the largest vertical industry for Sybase. Sybase customers often compliment the stability and reliability of ASE, and this has not changed over the past decade.

“The last time we shut down several of our Sybase ASE databases that support critical applications was almost two years ago, and that was only because we needed to apply an upgrade. The product is so reliable you actually don’t require any hardware redundancy to go with it.” (Database administrator, financial services company)

- **Strong technical support.** A majority of the enterprises we interviewed find that Sybase ASE’s support is very good, especially when compared with other leading DBMSes. Customers report that Sybase resolves issues more quickly than other providers and works with them proactively to ensure that no issue persists.

“Sybase support has been excellent; No other vendor even comes close to offering such a level of support. They resolve issues quickly, which has been a key reason why we continue to use the ASE product.” (Database manager, large bank)

- **Support for heterogeneous DBMSes.** One of Sybase’s core strengths is interoperability with other leading DBMS products and related solutions. For example, Sybase Replication Server supports all of the top DBMS products, including DB2, Oracle DBMS, SQL Server, and Sybase ASE. With more than 90% of enterprises using more than one DBMS product in their data centers, Sybase Replication Server is a viable solution to support data movement and integration.

- **Secure database product.** Over the past 12 months, there were no critical Sybase database vulnerabilities reported.¹ This is primarily due to the comprehensive testing that ASE product undergoes before its release. Sybase also continues to invest in DBMS security features and functionality to stay abreast of the latest threats. Sybase matched Oracle in releasing support for native data-at-rest encryption in 2006.

“Sybase keeps data secure and has the lowest vulnerabilities out there — it’s the best-kept secret.” (IT manager, insurance company)

- **Continued product innovation.** Sybase recently released Cluster Edition for ASE, which offers shared-disk clustering to support high availability. Before this, Oracle was the only vendor to offer a shared-disk clustering solution, called Real Application Clusters (RAC), on a distributed platform. In the near term, Sybase is likely to offer in-memory and data caching technologies to support high-end applications, as well as highly automated capabilities to make administration simpler. Additionally, Sybase continues to improve its features around XML, data integration, replication, mobile computing, and unstructured data management.

Some Concerns Remain

Today, three large vendors — Oracle, IBM, and Microsoft — dominate 87% of the DBMS market, with Sybase having the fourth-largest market share. Sybase has good DBMS technology, but some concerns regarding product support and visibility remain. More specifically, Sybase ASE:

- **Lacks support from leading packaged applications.** Sybase ASE does not currently support packaged applications such as Amdocs, Oracle/Siebel, and SAP R/3. Although the majority of customers typically deploy ASE for applications developed in-house, ASE’s support limitation can be an issue for some, especially given the continuing increased market penetration of vendors offering packaged applications.
- **Has a limited skills base.** Forrester estimates that globally, only about 5% of database administrators (DBAs) are trained on Sybase, and this number has not increased over the past three years. Some customers are already taking actions to remedy this, for example, training SQL Server DBAs in Sybase ASE administration. Sybase is taking some measures to address this, such as offering programs to ensure that customers worldwide have direct access to technical staff to support their business needs and increase Sybase training efforts.

“Sybase DBAs are becoming harder to find, and [this situation] could make us move to another DBMS if [it] does not change in the future.” (IT director, financial services company)

SYBASE CUSTOMER CASE STUDIES TELL THE STORY OF ASE VIABILITY

Among all of the interviews of Sybase customers using ASE that Forrester conducted, two stand out as examples that reflect the feedback we heard from many others. Stability, performance, high availability, security, scalability, and good technical support were common themes.

Foreign Affairs Canada Runs Its Passport Processing On Sybase ASE

Passport Canada, which is part of Foreign Affairs and International Trade Canada, is the government agency responsible for issuing, revoking, withholding, and recovering Canadian passports. It also provides guidance to missions, including passports abroad, and supervises all matters relating to Canadian travel documents. Passport Canada has 44 regional offices that span the Western, Ontario, Central, and Eastern regions of Canada.

Forrester spoke with Dragana Davidovic, the head of database services at Passport Canada. She indicated that all passport processing and other mission-critical applications run on Sybase ASE and depend on it for all of their database management requirements. The agency receives more than 20,000 passport requests a day and issues more than 3 million passports each year. Davidovic estimated that about 2,500 users use the system at various times during the day. In addition, the database stores a variety of unstructured data — including scanned images, supporting documents, and photos — beyond the standard structured data. She said that Sybase ASE:

- **Delivers stability in the Passport Canada environment.** Davidovic stated: “Although we have experienced some hardware failures in the past, Sybase recovered our database very quickly and smoothly without any data loss. Also, maintenance on Sybase is straightforward, and we did not encounter any major issues.”
- **Ensures availability for Passport Canada’s applications.** According to Davidovic: “We have a warm standby server for high-availability purposes that uses Sybase replication. We have had a good experience with the Sybase Replication product, which is processing nearly 30GB of replication volume per day.”
- **Maintains good performance.** Davidovic stated: “We have been using Sybase ASE since 1999 and have over hundred databases that support mission-critical applications, with the largest one being over 7 terabytes in size. Overall, we are pleased with Sybase and will continue to extend the usage over the coming years.”

GSA Uses Sybase ASE To Support A Critical Online Procurement System

The US General Services Administration’s (GSA) Federal Supply Service launched GSA Advantage!, a governmental online procurement system, in 1995. It offers online access to the latest product information and prices, tracks orders, and integrates with other systems for accounting purposes. GSA Advantage! offers more than 14 million products and services and did more than \$450 million in sales in 2007.

Forrester spoke with Al Iagnemmo, director of the eBusiness division at GSA. Iagnemmo said: “We have been using Sybase for the last 11 years. We have deployed Sybase on a couple of hundred databases in our environment. Sybase has been a very cost-effective solution for us, very open, and it was able to meet our requirements.” In the future, Iagnemmo plans to add more Sybase databases to support other applications. He said that Sybase:

- **Delivers a good database security solution.** GSA Advantage uses column-level encryption, and this allows it to protect data from unauthorized users and intrusions. Iagnemmo stated, “Sybase column-level encryption is just what we were looking for to secure our databases, and so far, it has met our requirements. The feature has minimal impact on performance.”
- **Scales well to meet requirements.** With more than 500,000 registered users and more than 350,000 searches per day, the database has grown severalfold over the past decade. According to Iagnemmo: “We are doing thousands of transactions per day with Sybase ASE and are very much dependent on it. It has met our performance and scalability requirements.”
- **Offers very good technical support.** Although GSA Advantage! has had a minimal number of issues over the past decade, Sybase technical support has been good. Iagnemmo stated: “We don’t have any problems with Sybase DBMS. They have very good support and services and continue to roll out new database features that meet our requirements.”

RECOMMENDATIONS

SYBASE ASE REMAINS A STRONG DBMS TO SUPPORT MOST TYPES OF APPLICATIONS

The future for Sybase ASE remains bright: It now offers advanced innovation and support for much larger databases, and Sybase has also expanded its ecosystem to support more third-party solutions. Sybase ASE offers a good balance of features and functionality to support transactional, XML, and unstructured data for most critical applications. Sybase ASE has features that will be attractive to old and new customers alike:

- **Existing Sybase customers will find ASE secure and easy to manage.** Enterprises looking to enhance data security for their databases should look at Sybase’s native data-at-rest encryption, which offers seamless encryption and decryption capabilities for applications. Sybase ASE 15 offers strong support for manageability, improved performance, and support for unstructured data types, including enhanced support for XML data types.
- **New Sybase customers will find ASE comprehensive, easy to deploy, and cost-effective.** Sybase is one of the top DBMS vendors that offer a comprehensive set of enterprise-class database features and functionality. Sybase Replication Server provides high-performance data replication across heterogeneous DBMSes, including DB2, Oracle DBMS, SQL Server, and

Sybase ASE. Another benefit that enterprises cite is that they often find the four-year cost of ownership for Sybase ASE lower than other leading DBMSes. In addition to the ASE trial version available from Sybase, customers can use Sybase ASE Express Edition on Linux for free.

ENDNOTES

- ¹ As of March 3, 2008, the National Vulnerability Database had no vulnerabilities reported for Sybase ASE for the last 12 months, while SQL Server was mentioned once, IBM DB2 and DB2 UDB products 33 times, and Oracle Database 34 times. Source: National Vulnerability Database (<http://nvd.nist.gov>).